

11-347419US
Amendment dated 01/08/2004

09/727,499

01750024aa
Reply to office action mailed 10/10/2003

REMARKS

Claims 1-20 are currently pending in the application. By this amendment, claims 1, 5-7, 10-12, 14-16 and 17-20 are amended for the Examiner's consideration. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each .

In the specification, the paragraphs beginning at page 2, line 13; page 8, line 5; page 8, line 14; page 9, line 3; page 9, line 19; page 12, line 2; page 12, line 15; page 13, line 4; page 14, line 12; and page 15, line 23 have been amended to correct errors in translation and syntax, and obvious errors evident from context, as with the colors of light emitting diodes at page 12, line 22, in view of the full paragraph beginning at page 12, line 15 and item S106 in Fig. 2. No new matter has been added.

The Examiner has rejected claims 1-4 and 6 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 5,999,637 to Toyoda et al. ("Toyoda"). Toyoda provides a system for identifying an individual (e.g. in order to manage entrance and exit of persons in and out of restricted areas) by comparing certain characteristics of the individual with previously recorded characteristics of that individual. Match or mismatch is judged by comparing a correlation of the two sets of characteristics with a certain threshold value. One embodiment of the described invention uses fingerprints. In recording a fingerprint for purposes of later correlation, Toyoda describes in Fig. 2 and at col. 7, lines 3-23 a process wherein, after a person presses a finger onto an input surface recorded by a CCD camera, a computer judges the quality of the recorded image and displays an evaluation (e.g. "the inputted fingerprint is too thin") if the quality of the fingerprint is insufficient, and the person again tries to input a fingerprint according to the instructions. When a satisfactory image is obtained, the characteristics of the fingerprint are correlated with fingerprints of others, and if the correlation is too high the finger is judged inappropriate and a suitable instruction (e.g. "use another finger") is displayed and the person retries to input the fingerprint

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of another finger, as described at col. 9, lines 22-29. It is to be noted that the display in Toyoda is a single visual display of instructions, and does not involve light emitting display elements or acoustic elements.

In the specification of the present invention there is described prior art wherein the input apparatus issues an alarm or displays an instruction to re-execute the fingerprint reading when the image quality is inadequate. However, “the conventional fingerprint input apparatus does not notify the user of the cause of an occurrence of a fingerprint reading failure” (page 2, lines 16-18). The user must re-execute the fingerprint reading by trial and error, without guidance enabling correction of the cause of the failure. In the present invention, these causes are identified in such a way that the user is readily able to correct the cause. The invention discloses display of the identified causes and/or corrective measures by visual, light emitting and acoustic means. These plurality of means are separately claimed in claims 5-7, 10-12, 14-16 and 17-19.

The Examiner has rejected claims 5 and 7 under 35 U.S.C. §103(a) as being unpatentable over Toyoda in view of U.S. Patent No. 5,828,773 to Setlak et al. (“Setlak”). The Examiner acknowledges that Toyoda fails to disclose the light emitting display elements of claim 5 (and 10, 14 and 17) or the acoustic display of claim 7 (and 12, 16 and 19). The Examiner asserts that these elements are shown in the Setlak reference. Setlak shows a methodology for providing user feedback during input of a fingerprint regarding correct positioning and pressure of the finger upon the sensor. The feedback may be provided with lights as shown by items 212-214 in Fig. 26 or by voice instructions as shown by item 39 in Fig. 25. Setlak expressly acknowledges the prior art problem of providing merely a “go or no-go” indication leading to user frustration “without any useful guidance on what may be causing the no-go indication” (col. 13, lines 50-59). However, Setlak provides essentially real-time feedback during the input of a fingerprint (col. 13, lines 44-46), without separate steps for evaluation following completion of fingerprint input, as contemplated by the

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present invention and the Toyoda reference. The real-time context for correcting a fingerprint during input provides an incentive for identifying and using a variety of feedback techniques, in order to assure suitable attentiveness to a user in a real-time context. These pressures are not present in the situation addressed by the present invention, where a recorded image is analyzed and the repetition of the fingerprint input is a discrete step undertaken after the analysis step is completed. Therefore it would not be obvious to apply a plurality of feedback techniques evident in Setlak's real-time context to a different context lacking the real-time incentives. This lack of obviousness is supported by omission in Toyoda of a plurality of feedback mechanisms, notwithstanding one of the uses of the Toyoda invention was to manage entrance and exit out of restricted areas. Therefore it is probable that the teaching of Setlak regarding use of a plurality of feedback techniques in a real-time context would not be applied to the discrete sequential step context of the present invention absent impermissible hindsight.

Consequently, the claims have been amended to include a plurality of means for displaying to the user the results of fingerprint analysis. The existing claims relating to the display means (claims 5-7, 10-12, 14-16 and 17-19) have been amended to further emphasize the invention's disclosure of a plurality of display means.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-20 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: clyde@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

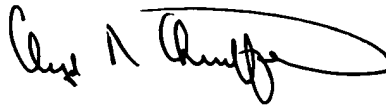
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If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Clyde R. Christofferson", with a large, sweeping loop at the end.

Clyde R Christofferson
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